

Listing of claims:

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1. (Previously Presented) A method for detection and/or quantification of a hydrophilic compound or biological material dispersed or distributed in a hydrophobic liquid matrix comprising:

a) providing a sample of a hydrophobic liquid, which is a hydrophobic/non-polar/non-ionic liquid matrix;

b) adding to said sample an aqueous capture solution comprising at least one extractant that is an amphoteric phospholipid, an anionic phospholipid or an anionic surfactant, wherein said extractant improves the yield of the hydrophilic compound extracted from the hydrophobic matrix

and

a water-soluble dye in an amount to allow good visibility of the aqueous phase;

c) mixing said sample and said capture solution thoroughly;

d) allowing an aqueous phase to separate from the sample phase;

and

e) measuring the hydrophilic compound or biological material in the aqueous phase.

2. (Withdrawn) An aqueous capture solution containing at least one extractant, said extractant in said capture solution improving the yield of a hydrophilic compound extracted from a hydrophobic matrix.

3. (Withdrawn) A capture solution according to claim 2, wherein said extractant is selected out of the group consisting of amphoteric or anionic phospholipids and anionic surfactants.

4. (Withdrawn) A capture solution according to claim 3, wherein said extractant is a lecithin.

5. (Withdrawn) A capture solution according to Claim 2, containing more than one extractant.

6. (Withdrawn) A capture solution according to Claim 2, containing a non-ionic surfactant in addition to the extractant(s).
7. (Withdrawn) A capture solution according to Claim 2 containing a water-soluble dye in an amount to allow good visibility of the aqueous phase.
8. (Withdrawn) A reagent kit for extracting a hydrophilic compound from a hydrophobic matrix and detection of said hydrophilic compound comprising a capture solution according to Claim 2.
9. (Previously presented) A method according to claim 1, wherein said extractant is a lecithin.
10. (Previously presented) A method according to Claim 1, wherein said aqueous capture solution contains more than one extractant.
11. (Previously presented) A method according to Claim 1, wherein said aqueous capture solution further comprises a non-ionic surfactant in addition to the extractant(s).
12. (Previously Presented) A method according to claim 1, wherein said liquid matrix is crude oil, petrol or kerosene.
13. (Previously presented) A method according to claim 1, wherein said hydrophilic compound is ATP, NAD, NADP, NADH, NADPH, an enzyme, a free fatty acid, a preservative, a biocide or a salt.
14. (Previously presented) A method according to claim 1, wherein said extractant is lecithin, phosphatidyl inositol, deoxycholic acid, or potassium sorbate.

15. (Previously presented) A method according to claim 1, wherein said aqueous capture solution further contains sodium hypochlorite, sodium chloride, phosphate buffer, or sodium hydroxide.

16. (Previously presented) A method according to claim 1, wherein said dye is methylene-blue, Patent Blue V or Fluorescein.

17. (Previously Presented) A method according to claim 1, for the detection of free chemical and biomass components in a hydrophobic liquid, wherein ATP (Adenosine Triphosphate) is determined as marker by luminometry using luciferase.

18.(Previously Presented) A method according to at least one of the claims 1, wherein the hydrophobic liquid matrix is aviation fuel.

19.(Previously Presented) A method according to at least one of the claims 1, wherein the added capture solution contains lecithin in an effective concentration between 0.1 % (w/v) and 1 % (w/v).

20.(Previously Presented) A method according to at least one of the claims 1, wherein the added capture solution contains a water-soluble dye or a fluorescent compound in a concentration sufficient to allow good visibility of the aqueous phase.

21.(Previously Presented) A method according to at least one of the claims 1, wherein the added capture solution contains at least one extractant that is a polysorbate, a sorbitan mono-laureate, a sorbitan mono-oleate, an alkyl-polyethyleneglycol-ether, an anionic surfactant or emulsifier, sodium cholate hydrate, phosphatidyl inositol, deoxycholic acid sodium salt, sodium propionate, potassium sorbate, a cationic surfactant or emulsifier, benzalkonium chloride, dodecyl trimethyl ammonium bromide, detyl pyrimidinium bromide, cetyl trimethyl ammonium bromide, or an amphoteric, zwitterionic surfactant or emulsifier, optionally in combination with a neutral surfactant.

22.(Previously Presented) A method according to at least one of the claims 1, wherein the added capture solution comprises 0.50 - 10.00 g Soy Lecithin, 0.01-0.20 g Methylene Blue, 0.01-0.05 g Sodium Hypochlorite and 1000.00 ml water, and which is added to the sample in a low ratio of 1 : 10 or less.

23.(Previously Presented) A method according to claim 1, wherein the hydrophilic compound or biological material is detected in aviation fuel, diesel or kerosene.

24. (Previously Presented) A method according to claim 21, wherein said amphoteric, zwitterionic surfactant or emulsifier is a lecithin, a cephalin, CHAPS or CHAPSO.

25. (Previously Presented) A method for detection and/or quantification of a hydrophilic compound or biological material dispersed or distributed in a hydrophobic liquid matrix comprising:

a) providing a sample of a hydrophobic liquid, which is a hydrophobic/non-polar/non-ionic liquid matrix;

b) adding to said sample an aqueous capture solution comprising at least one extractant that is an amphoteric phospholipid, an anionic phospholipid or an anionic surfactant, wherein said extractant improves the yield of the hydrophilic compound extracted from the hydrophobic matrix

and

a water-soluble dye in an amount to allow good visibility of the aqueous phase;

c) mixing said sample and said capture solution thoroughly;

d) allowing an aqueous phase to separate from the sample phase;

and

e) measuring the hydrophilic compound or biological material in the aqueous phase

wherein said capture solution does not contain a cationic extractant.